

Serial No. 10/714,767

Dkt.: P0011092.00

Filing Date: November 17, 2003

Title: IMPLANTABLE HEART VALVE PROSTHETIC DEVICES HAVING INTRINSICALLY
CONDUCTIVE POLYMERS

Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) An implantable heart valve sewing prosthesis comprising a ring shaped body having a blood contacting external surface including an intrinsically conductive polymer having a resistivity of less than about 2000 ohms per square, wherein the intrinsically conductive polymer does not require a metallic filler or coating.
2. (Previously presented) The prosthesis of claim 1, wherein the ring shaped body is substantially closed upon itself.
3. (Previously presented) The prosthesis of claim 1, wherein the ring shaped body has an annular gap and is not closed upon itself.
4. (Withdrawn) The prosthesis of claim 1, wherein the prosthesis is a prosthetic heart valve sewing ring.
5. (Previously presented) The prosthesis of claim 1, wherein the external surface includes at least a part of a sheath of fabric, wherein the fabric incorporates the intrinsically conductive polymer.
6. (Previously presented) The prosthesis of claim 1, wherein the polymer has a resistivity of less than 1000 ohms per square.
7. (Withdrawn-currently amended) A blood contacting implantable biomedical device comprising a blood contacting external surface having an intrinsically conductive

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polymer layer, wherein the intrinsically conductive polymer does not require a metallic filler or coating and wherein the device is selected from heart valve annuloplasty rings, heart valve annuloplasty bands, mechanical prosthetic heart valves, and bioprosthetic heart valves.

8. (Withdrawn) The device of claim 7, wherein the external surface includes a fabric having the polymer layer formed thereover.
9. (Withdrawn) The device of claim 8, wherein the fabric is formed of a plurality of individual filaments, and wherein the polymer layer is at least in part formed by a polymer coating over the individual filaments.
10. (Withdrawn) The device of claim 8, wherein the fabric is formed of a plurality of individual filament bundles formed of a plurality of filaments, and wherein the polymer layer is at least in part formed by a polymer coating over the individual filament bundles.
11. (Withdrawn) The device of claim 8, wherein the fabric is formed of a plurality of individual fibers formed of a plurality of filament bundles formed of a plurality of filaments, and wherein the polymer layer is at least in part formed by a polymer coating over the individual fibers.
12. (Withdrawn) The device of claim 8, wherein the polymer layer is a product of *in situ* polymerization on the fabric.
13. (Withdrawn) The device of claim 8, wherein the fabric is formed at least in part by filaments of integrally formed intrinsically conductive polymer.

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14. (Withdrawn) The device of claim 8, wherein the polymer layer comprises polypyrrole.
15. (Withdrawn) The device of claim 8, wherein the polymer layer comprises a polypyrrole derivative.
16. (Withdrawn) The device of claim 8, wherein the polymer layer has a surface resistivity between about 10 and 1000 ohms per square.
17. (Withdrawn) The device of claim 8, wherein the polymer layer includes a polymer selected from polyaniline, polypyrrole, poly(vinylferrocene), polyactelyne, polythiophene, polybithiophene, and derivatives and combinations thereof.
18. (Withdrawn) The device of claim 8, wherein the polymer layer includes a polymer selected from polypyrrole and derivatives thereof.
19. (Withdrawn) The device of claim 18, wherein the polymer is doped with dialkyl-napthalene sulfonate.
20. (Currently amended) An annuloplasty prosthesis for implanting in a heart valve annulus in a patient, the annuloplasty prosthesis comprising a ring shaped body comprising a blood contacting external surface comprising an intrinsically conductive polymer, wherein the intrinsically conductive polymer does not require a metallic filler or coating.
21. (Cancelled)

RESPONSE TO OFFICIAL COMMUNICATION

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22. (Previously presented) The annuloplasty prosthesis of claim 20, wherein the external surface comprises fabric, wherein the fabric comprises an intrinsically conductive polymer.

23-25. (Cancelled)

26. (Previously presented) The annuloplasty prosthesis of claim 20, wherein the intrinsically conductive polymer has a resistivity of less than 1000 ohms per square.

27-43. (Cancelled)

44. (Withdrawn) The prosthesis of claim 4, wherein the prosthesis is a prosthetic heart valve sewing cuff.